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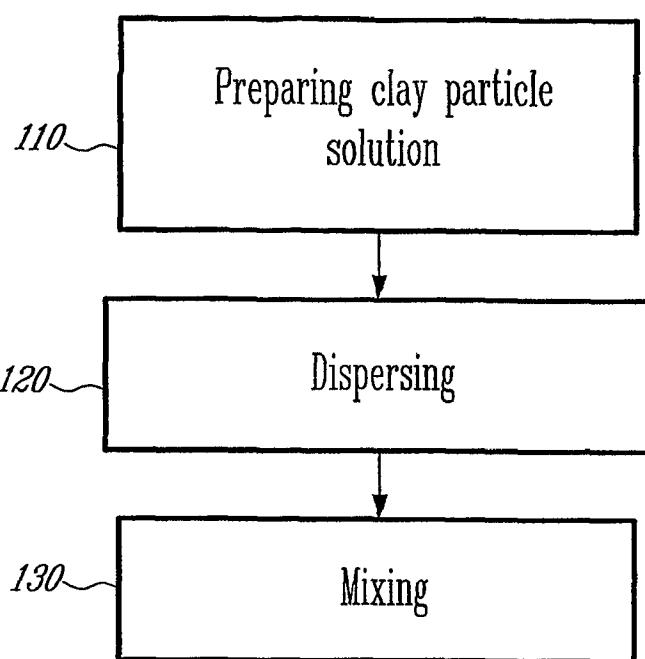
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(54) Title: METHOD AND SYSTEM FOR MAKING HIGH PERFORMANCE EPOXIES, AND HIGH PERFORMANCE EPOXIES OBTAINED THEREWITH



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(57) Abstract: A method comprising preparing a solution of clay particles solution, submitting the solution of clay particles first to a high pressure and high velocity flow for shearing the particles in the solution of clay particles, and to a sudden lower pressure, whereby the particles explode into the mist of the solution of clay particles, and mixing the finely dispersed clay solution, whereby epoxy is introduced in the solution of clay particles during one of the above steps of preparing the solution of clay particles or dispersing the solution of clay particles or to the resulting dispersed solution of clay particles, yielding an extremely fine and homogeneous distribution of the particles of nanodimensions in the epoxy, yielding a high-performance nanocomposite epoxy.



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